

Claims

[c1] WHAT IS CLAIMED IS:

1. An integrated retractable automotive cargo tie-down assembly comprising:

- a) a plurality of spaced apart tie-down cords, each such tie-down cord having a proximal end and a distal end, each of said proximal ends having hooks attached permanently thereto, said proximal ends located in the cargo compartment of an automotive vehicle, and said distal ends attached behind the interior walls of the cargo area of said automotive vehicle, wherein said tie-down cords pass through the interior walls through a plurality of spaced apart openings;
- b) said plurality of openings in said interior walls each having a hook retaining channel in communication therewith to hold said hooks in a utility hook manner against said interior walls when said tie-down cords are in a fully retracted position, and
- c) a plurality of spaced apart tie-down bars located on the cargo area floor for securing said hooks on said proximal ends of said tie-down cords, thereby allowing the securing of cargo within the cargo area of an automotive vehicle.

- [c2] 2.The integrated retractable cargo tie-down assembly as claimed in Claim 1 wherein, said tie-down cords comprise a length when relaxed which causes the hooks to be positioned in said channels in said side walls and when said tie-down cords are fully extended reach substantially about half way across the width of said cargo area.
- [c3] 3.The integrated retractable cargo tie-down assembly as claimed in Claim 1 wherein, said hooks comprise a hook and a head having a configuration allowing easy grasping of said hooks.
- [c4] 4.The integrated retractable cargo tie-down assembly as claimed in Claim 1 wherein, said tie-down bars are recessed below the cargo floor surface.
- [c5] 5.The integrated retractable cargo tie-down assembly as claimed in Claim 1 wherein, said tie-down cords comprise bungee cords.
- [c6] 6.The integrated retractable cargo tie-down assembly as claimed in Claim 1 wherein, said hooks have a stem and ball end on the back to allow the hooks to pop into and be secured to the interior cargo wall.
- [c7] 7.The integrated retractable cargo tie-down assembly as

claimed in Claim 1 wherein, said hooks have a male screw thread compatible with a complimentary female screw thread in each of said plurality of openings for locking said hooks in a utility hook position.

[c8] 8.The integrated retractable cargo tie-down assembly as claimed in Claim 1 wherein, said tie-down cords distal ends are permanently attached.

[c9] 9.The integrated retractable cargo tie-down assembly as claimed in Claim 1 wherein, said tie-down cords distal ends are removably attached.

[c10] 10. The integrated retractable cargo tie-down assembly as claimed in Claim 1 wherein, said tie-down cords comprise nylon webbing attached at their distal ends to a mechanical retractor means.

[c11] 11.An integrated removable automotive cargo tie-down assembly comprising:

a)a plurality of spaced apart tie-down cords, each such tie-down cord having a proximal end and a distal end, each of said proximal ends having hooks attached permanently thereto, said proximal ends located in the cargo compartment of an automotive vehicle, and said distal ends attached to the interior walls of the cargo area of said automotive vehicle by a plurality of spaced

apart attachment openings;

b)said plurality of tie-down cord distal ends each having a retaining device for attaching said tie-down cord distal ends to said plurality of spaced apart attachment openings,

c)said plurality of attachment openings in said interior walls each having a complimentary tie-down cord distal ends retaining device in commutation therewith to attach said plurality of tie-down cord distal ends to said interior walls, and

d)a plurality of spaced apart tie-down bars located on the cargo area floor and the seat backs of the rear seats for securing said hooks on said proximal ends of said tie-down cords,thereby allowing the securing of cargo within the cargo area of an automotive vehicle.

[c12] 12.The integrated removable cargo tie-down assembly as claimed in Claim 11 wherein, said tie-down cords comprises a length when said tie-down cords are fully extended that reaches substantially about half way across the width of said cargo area.

[c13] 13.The integrated removable cargo tie-down assembly as claimed in Claim 11 wherein, said hooks comprise a hook and a head having a configuration allowing easy grasping of said hooks.

- [c14] 14.The integrated removable cargo tie-down assembly as claimed in Claim 11 wherein, said tie-down bars are recessed below the cargo floor surface and recessed below the rear seat back surface..
- [c15] 15.The integrated removable cargo tie-down assembly as claimed in Claim 11 wherein, said tie-down cords comprise bungee cords.
- [c16] 16.The integrated retractable cargo tie-down assembly as claimed in Claim 11 wherein, said hooks have a stem and ball end on the back to allow the hooks to pop into and be secured to the interior cargo wall.
- [c17] 17. The integrated retractable cargo tie-down assembly as claimed in Claim 11 wherein, said tie-down cords are removable when not in use.
- [c18] 18.The integrated removable cargo tie-down assembly as claimed in Claim 11 wherein, said tie-down cords may be mounted in any of said plurality of spaced apart attachment openings.
- [c19] 19.The integrated removable cargo tie-down assembly as claimed in Claim 11 wherein, said plurality of tie-down cord distal end retaining devices each further have a tie-down hook attaching device.